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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,782	11/18/2002	Fu-Chang Lin	DTCP0001USA	2416

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EXAMINER	
BAKER, CHARLOTTE M	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,782	LIN, FU-CHANG	
	Examiner	Art Unit	
	Charlotte M. Baker	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 18 November 2002 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 07/28/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

NOTE: The drawings in IFW are too small and when the drawings are enlarged they become distorted.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method steps of all claims and a compressor and printer with a decompressor in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. The following is a quotation of 37 C.F.R. 1.75 (d)(1):

> The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

4. Claims 1, 4 and 6-9 are objected to because of the following informalities: claim 1 "the print data" lacks antecedent basis; claim 4 "the raw data" lacks antecedent basis; claims 6-9 "the encoded data" lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. (6,075,949) in view of admitted prior art and further in view of Sabbagh et al. (6,814,510).

Regarding claim 1: Hatakenaka et al. disclose providing a printer manager for generating the print data (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8), the printer manager comprising a device-dependent converter (Fig. 3, signal processing unit 3) for converting input data into device-dependent output data (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) (col. 4, ln. 3-20); providing encoded data (encoding/decoding unit 4 in Fig. 3) to the print manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8); the printer manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) decoding the encoded data (Fig. 3, encoding/decoding unit 4) to generate raw data (col. 5, ln. 39-43), and utilizing the converter (Fig. 3, signal processing unit 3) to convert the raw data into the device-dependent print data (col. 4, ln. 3-20).

Hatakenaka et al. fail to specifically address an operating system with upper and lower layers and providing the print data to the lower layer.

Admitted prior art discloses an operating system (Fig. 1, OS12) having an upper layer (Fig. 1, upper layer 15) for controlling a graphical device interface (Fig. 1, GDI 16), and a lower layer (Fig.1, lower layer 18) for controlling input/output activities (par. 4); providing the device-dependent print data to the lower layer (Fig. 1, lower layer 18); and the lower layer (Fig. 1, lower layer 18) of the operating system (Fig. 1, OS12) outputting the device-dependent print data to the printer (Fig. 1, printer 30)(par. 4).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the teaching of the admitted prior art in order to print the data received from the computer system as taught by admitted prior art (par. 4).

Hatakenaka et al. fail to specifically address without utilizing the upper layer.

Sabbagh et al. disclose without utilizing the upper layer (Fig. 3, path 320 and col. 3, ln. 39-51).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the teaching of Sabbagh et al. in order to directly create a spool file without using the GDI (col. 3, ln. 49-51).

Regarding claim 4: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1. Hatakenaka et al. further disclose a user interface (Fig. 3, control unit 11) for configuring the print manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8), wherein the converter (Fig. 3, signal processing unit 3) converts the raw data into the device-dependent print data (col. 4, ln. 3-20) according to configuration information of the user interface (Fig. 3, control unit 11 and col. 5, ln. 3-).

Regarding claim 5: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1. **NOTE:** since there is no support for a printer with a decompressor, Examiner is interpreting this as a typographical error and reading the claim as the printer manager with a decompressor. Hatakenaka et al. further disclose wherein the printer manager (Fig. 3, signal processing unit 3 and encoding/decoding unit 4 and printer interface 8) further comprises a compressor (Fig. 3, encoding/decoding unit 4, encoding portion)

for compressing the device-dependent print data (col. 4, ln. 3-20), and the printer comprises a decompressor (Fig. 3, encoding/decoding unit 4, decoding portion) for decompressing the compressed device-dependent print data (col. 4, ln. 3-20).

7. Claims 2-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. and further in view of Shiohara (6,618,553).

Regarding claim 2: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address the converter which converts raw data into gray-level image data and converts the gray-level image data into print data.

Shiohara discloses wherein the converter (Fig. 11, rasterizer 221) converts the raw data into gray-level image data and converts the gray-level image data into the device-dependent print data (col. 10, ln. 6-16).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the converter to allow the processing of monochrome image data as taught by Shiohara (col. 10, ln. 6-12).

Regarding claim 3: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address the converter which converts raw data into cyan-magenta-yellow-black (CMYK) image data and converts the CMYK image data into print data.

Shiohara discloses wherein the converter (Fig. 11, rasterizer 221) converts raw data into cyan-magenta-yellow-black (CMYK) image data and converts the CMYK image data into device-dependent print data (Fig. 11 and col. 10, ln. 18-22).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the converter to relate the data to print colors as taught by Shiohara (col. 10, ln. 18-22).

Regarding claim 6: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in JPEG format.

Shiohara discloses wherein the encoded data is stored in a joint photographic experts group (JPEG) format (col. 4, ln. 16-34).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to store the encoded data in JPEG format in order to apply the normal standard of compression as taught by Shiohara (col. 1, ln. 22-27).

8. Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. and further in view of Nakajima et al. (US 2002/0135687 A1).

Regarding claim 7: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in GIF format.

Nakajima et al. disclose wherein the encoded data is stored in a graphics interchange format (GIF) (par. 58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention in order to employ another storage format other than JPEG as taught by Nakajima et al. (par. 58).

Regarding claim 8: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in BMP format.

Nakajima et al. disclose wherein the encoded data is stored in a bitmap (BMP)(par. 58).

Regarding claim 9: Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. satisfy all the elements of claim 1.

Hatakenaka et al. in view of admitted prior art and further in view of Sabbagh et al. fail to specifically address encoded data stored in TIFF format.

Nakajima et al. disclose wherein the encoded data is stored in a tag image file format (TIFF)(par. 58).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

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KAWilliams

KIMBERLY WILLIAMS
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